

# Work Order ID 87729

July-27-12 12:57:04 PM

**\*87729\***

Page 1

Item ID: 41232-200-002-001

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: tube

Start Date: 7/27/12 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 8/24/12 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/07/27

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start **\*NR1\***

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
41232-200-002	Rev A

100

0.00

**\*100\***

CONVENTIONAL LATHE

Hardinge

Memo

0.00

Hardinge CNC Lathe Small

Turn as per Dwg 41232-200-0021

TURN BORE TAP DRILL 45/64" AND TAP 3/4" 20

110

0.00

**\*110\***

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

120

0.00

**\*120\***

HAAS CNC VERTICAL MACHINING #1

HAAS 1

Memo

0.00

HAAS CNC vertical machine #1

1- Mill as per Folio FA687 Rev: AA & Dwg 41232-200-002 Rev: AA

2-Deburr

12-09-27

12-09-27

12/10/22




FK 12/10/23

PTO

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: John Date: 12/12/04QA Closed: John Date:

Work Order: <u>87729</u> Part No. <u>41232-200-002-001</u> NCR No. <u>12-2044</u>				<b>DISPOSITION</b> Rework <input type="checkbox"/> Scrap <input checked="" type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b> <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input checked="" type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>						Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input checked="" type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>																								
Machining <input checked="" type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>																								
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>																								
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																									
Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector																		
Doc/Data <input type="checkbox"/>	12/10/22	20	1	1 part scrap.. install the part in the wrong position	 [Signature]	scrap and destroy replace Qty 1 Batch 120777  <div style="border: 1px solid black; border-radius: 50%; padding: 5px; display: inline-block;">\$302.85</div>	 12/10/22	DAS 25 9-8 12-10-24	 12-10-24																		
Equip/Tooling <input type="checkbox"/>																											
Operator <input type="checkbox"/>																											
Material <input type="checkbox"/>																											
Setup <input type="checkbox"/>																											
Other <input type="checkbox"/>																											
Process <input type="checkbox"/>																											
Supplier <input type="checkbox"/>																											
Training <input type="checkbox"/>																											
Unapproved <input type="checkbox"/>																											

## FAULT CATEGORY

## Landing Gear

- |   |
|---|
| <input type="checkbox"/> Bending                      |
| <input type="checkbox"/> Centre Not Concentric to O/S |
| <input type="checkbox"/> Cracks                       |
| <input type="checkbox"/> Crushed/Crimped.             |
| <input type="checkbox"/> Cuffs                        |
| <input type="checkbox"/> Heat Treat                   |
| <input type="checkbox"/> Inspection Strip in Tube     |
| <input type="checkbox"/> Ripples in Bend              |
| <input type="checkbox"/> Torque Waves in Extrusion    |
| <input type="checkbox"/> Turning Sequence             |
| <input type="checkbox"/> Wave/Twist in Tube           |

## General

- |   |
|---|
| <input type="checkbox"/> Bend           |
| <input type="checkbox"/> BOM/Route      |
| <input type="checkbox"/> Broken/Damaged |
| <input type="checkbox"/> Burrs          |
| <input type="checkbox"/> Contamination  |
| <input type="checkbox"/> Countersink    |
| <input type="checkbox"/> Cut Too Short  |
| <input type="checkbox"/> Drill Holes    |
| <input type="checkbox"/> Drawing        |
| <input type="checkbox"/> Finish         |
| <input type="checkbox"/> Folio          |

- |  |
|--|
| <input type="checkbox"/> Grain                           |
| <input type="checkbox"/> Hardware                        |
| <input type="checkbox"/> Inspection Incomplete           |
| <input type="checkbox"/> Instructions Incomplete/Unclear |
| <input type="checkbox"/> Maintenance                     |
| <input type="checkbox"/> Mislabeled                      |
| <input type="checkbox"/> Misread                         |
| <input type="checkbox"/> Offset                          |
| <input type="checkbox"/> Out of Calibration              |
| <input type="checkbox"/> Out of Sequence                 |
| <input type="checkbox"/> Outside Dimensions              |

- |   |
|---|
| <input type="checkbox"/> Ovalized             |
| <input type="checkbox"/> Over/Under tolerance |
| <input type="checkbox"/> Part Incorrect       |
| <input type="checkbox"/> Part Lost/Missing    |
| <input type="checkbox"/> Part Moved           |
| <input type="checkbox"/> Positioned Wrong     |
| <input type="checkbox"/> Power Loss/Surge     |

- |   |
|---|
| <input type="checkbox"/> Pressure/Forced    |
| <input type="checkbox"/> Temperature/Cure   |
| <input type="checkbox"/> Weld               |
| <input type="checkbox"/> Wrong Stock Pulled |
| <input type="checkbox"/> Other              |

# Work Order ID 87729

\*87729\*

Page 2

July-27-12 12:57:04 PM

Item ID: 41232-200-002-001 Accept \*N900040100\* Setup Start \*NS1\*  
 Revision ID: Stop \*NS2\*  
 Item Name: tube  
 Start Date: 7/27/12 Start Qty: 4.00 \*4\* Cust Item ID:  
 Required Date: 8/24/12 Req'd Qty: 4.00 \*4\* Customer:  
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start \*NR1\*  
 QC: Date: SPC (Y/N): Date: Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 *130* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB  Memo	0.00 0.00		FK 12/10/23		4			
140 *140* QC Quality Control	QC8- Inspect parts - second check  Memo	0.00 0.00		DAS 25 12-10-24 2-83		(4)			
150 *150* Outsource4 Outsource process - Anodize	Outsource process-Anodize per QSI017 4.1.10.1  Memo Issue P/O: 18241 Black Anodize as per Dwg 41232-200-005 Ensure Certificate of Conformity is attached	0.00 0.00				CX 12/10/24 (4)			

resenter re-analyze. CX 12/11/08 (4)

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____	<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b>  <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data									
Equip/Tooling									
Operator									
Material									
Setup									
Other									
Process									
Supplier									
Training									
Unapproved									

**FAULT CATEGORY**

Landing Gear	General	Other
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions
		<input type="checkbox"/> Ovalized
		<input type="checkbox"/> Over/Under tolerance
		<input type="checkbox"/> Part Incorrect
		<input type="checkbox"/> Part Lost/Missing
		<input type="checkbox"/> Part Moved
		<input type="checkbox"/> Positioned Wrong
		<input type="checkbox"/> Power Loss/Surge
		<input type="checkbox"/> Pressure/Forced
		<input type="checkbox"/> Temperature/Cure
		<input type="checkbox"/> Weld
		<input type="checkbox"/> Wrong Stock Pulled
		<input type="checkbox"/> Other

# Work Order ID 87729

**\*87729\***

Page 3

July-27-12 12:57:04 PM

Item ID: 41232-200-002-001

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: tube

Start Date: 7/27/12 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 8/24/12 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Run Start **\*NR1\***

Stop **\*NR2\***

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

160

Receive & Inspect for Damage & Mat'l Certs

0.00

**\*160\***

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

*6/2/14* *(3)*

170

*QC3* - Inspect Part Finish

0.00

**\*170\***

QC

*all*

Memo

0.00

Quality Control

*DAS 16* *12/11/14*

*PTO →*

180

Identify as per dwg & Stock Location: *81377*

0.00

**\*180\***

Packaging

Memo

0.00

Packaging

*4x* *SP* *12-11-14*

NCR: Yes / No

## WORK ORDER NON-CONFORMANCE / UPDATE

DQA: John Date: 12/11/24QA Closed: OK Date: 11

Work Order: <u>87729</u> Part No. <u>41232-200-002-001</u> NCR No. <u>12-2045</u>	<b>DISPOSITION</b> Rework <input checked="" type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>	<b>AGAINST DEPARTMENT/PROCESS</b> <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input checked="" type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input checked="" type="checkbox"/>	
Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>															
Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>															
Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>															
Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input checked="" type="checkbox"/>																

Root Cause		Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Doc/Data		12/10/25			Parts were returned by ATG with the outside Finish as per.	DAS 16 05/04/24	inform ATG of issue + return Qty x 4 for Reanalysis	OK 12/11/25		DAS 16 05/04/24
Equip/Tooling										
Operator										
Material										
Setup										
Other										
Process										
Supplier										
Training										
Unapproved										

## FAULT CATEGORY

<b>Landing Gear</b> <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric to O/S <input type="checkbox"/> Cracks <input type="checkbox"/> Crushed/Crimped <input type="checkbox"/> Cuffs <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Ripples in Bend <input type="checkbox"/> Torque Waves in Extrusion <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	<b>General</b> <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damaged <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drill Holes <input type="checkbox"/> Drawing <input type="checkbox"/> Finish <input type="checkbox"/> Folio	<input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Maintenance <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Offset <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence <input type="checkbox"/> Outside Dimensions
---	---	---

<input type="checkbox"/> Ovalized <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled	<input checked="" type="checkbox"/> Other <u>unsatisfactory Finish</u>
--	---	---

Work Order ID 87729

**\*87729\***

Page 4

July-27-12 12:57:04 PM

Item ID: 41232-200-002-001

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: tube

Start Date: 7/27/12 Start Qty: 4.00

**\*4\***

Cust Item ID:

Required Date: 8/24/12 Req'd Qty: 4.00

**\*4\***

Customer:

Reference:

Run Start **\*NR1\***

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC21- Final Inspection - Work Order Release	0.00							
<b>*190*</b>									
QC	Memo	0.00							
Quality Control									

12/11/15

MP  
12-11-14

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											
<b>FAULT CATEGORY</b>											
<b>Landing Gear</b>		<b>General</b>									
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced							
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure							
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld							
<input type="checkbox"/> Crushed/Crimped.	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled							
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved								
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong								
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other							
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset									
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration									
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence									
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions									



# Picklist Print

July-27-12 12:57:04 PM

Page 1

Work Order ID: 87729

Parent Item: 41232-200-002-001

Start Date: 7/27/12

Required Date: 8/24/12

Parent Item Name: tube

Start Qty: 4.00

Required Qty: 4.00

## Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M2024T3H1.375 2024-T3 Hex Bar 1.375"		Purchased	No			100	f	11.0000	0.5	2			

### Location

### Loc Qty

### Loc Code

MAT012

11

120777

11

2.0

AD 12-09-27

NCR: Yes / No

**WORK ORDER NON-CONFORMANCE / UPDATE**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order: _____  Part No. _____  NCR No. _____				<b>DISPOSITION</b>  Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Work Order Update <input type="checkbox"/>		<b>AGAINST DEPARTMENT/PROCESS</b>  <div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/>            Machining <input type="checkbox"/>            Thermoforming <input type="checkbox"/>            Large Fab <input type="checkbox"/> </div> <div>           Crosstube <input type="checkbox"/>            Small Fab <input type="checkbox"/>            Finishing <input type="checkbox"/>            Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/>            Prod. Eng. Coord. <input type="checkbox"/>            Rec/Store/Packaging <input type="checkbox"/>            Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/>            Quality <input type="checkbox"/>            Other <input type="checkbox"/> </div> </div>					
<b>Root Cause</b>	Date	Step	Qty	Description of work order update or Non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector		
Doc/Data <input type="checkbox"/>											
Equip/Tooling <input type="checkbox"/>											
Operator <input type="checkbox"/>											
Material <input type="checkbox"/>											
Setup <input type="checkbox"/>											
Other <input type="checkbox"/>											
Process <input type="checkbox"/>											
Supplier <input type="checkbox"/>											
Training <input type="checkbox"/>											
Unapproved <input type="checkbox"/>											

FAULT CATEGORY									
<b>Landing Gear</b>			<b>General</b>						
<input type="checkbox"/> Bending	<input type="checkbox"/> Bend	<input type="checkbox"/> Grain	<input type="checkbox"/> Ovalized	<input type="checkbox"/> Pressure/Forced					
<input type="checkbox"/> Centre Not Concentric to O/S	<input type="checkbox"/> BOM/Route	<input type="checkbox"/> Hardware	<input type="checkbox"/> Over/Under tolerance	<input type="checkbox"/> Temperature/Cure					
<input type="checkbox"/> Cracks	<input type="checkbox"/> Broken/Damaged	<input type="checkbox"/> Inspection Incomplete	<input type="checkbox"/> Part Incorrect	<input type="checkbox"/> Weld					
<input type="checkbox"/> Crushed/Crimped	<input type="checkbox"/> Burrs	<input type="checkbox"/> Instructions Incomplete/Unclear	<input type="checkbox"/> Part Lost/Missing	<input type="checkbox"/> Wrong Stock Pulled					
<input type="checkbox"/> Cuffs	<input type="checkbox"/> Contamination	<input type="checkbox"/> Maintenance	<input type="checkbox"/> Part Moved						
<input type="checkbox"/> Heat Treat	<input type="checkbox"/> Countersink	<input type="checkbox"/> Mislabeled	<input type="checkbox"/> Positioned Wrong						
<input type="checkbox"/> Inspection Strip in Tube	<input type="checkbox"/> Cut Too Short	<input type="checkbox"/> Misread	<input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Other					
<input type="checkbox"/> Ripples in Bend	<input type="checkbox"/> Drill Holes	<input type="checkbox"/> Offset							
<input type="checkbox"/> Torque Waves in Extrusion	<input type="checkbox"/> Drawing	<input type="checkbox"/> Out of Calibration							
<input type="checkbox"/> Turning Sequence	<input type="checkbox"/> Finish	<input type="checkbox"/> Out of Sequence							
<input type="checkbox"/> Wave/Twist in Tube	<input type="checkbox"/> Folio	<input type="checkbox"/> Outside Dimensions							

DART AEROSPACE LTD		Work Order:	87729
Description: Tube		Part Number:	41232-200-002-001
Inspection Dwg: 41232-200-002 Rev: A		Page 1 of 1	

### FIRST ARTICLE INSPECTION CHECKLIST

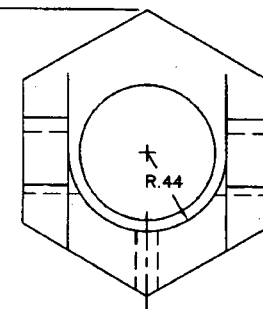
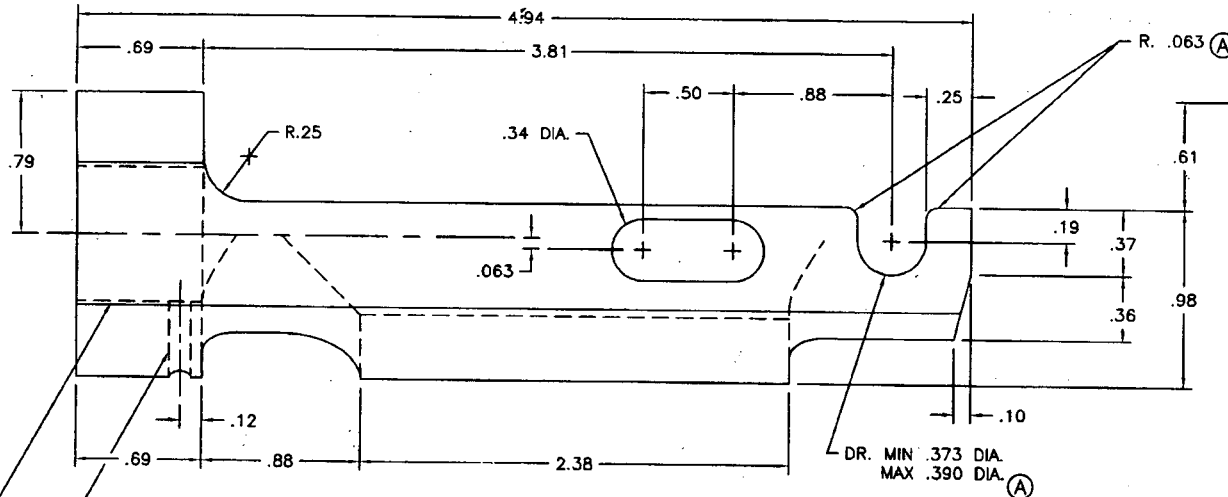
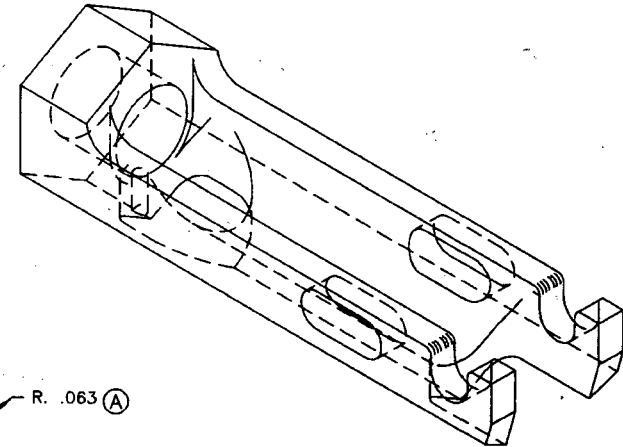
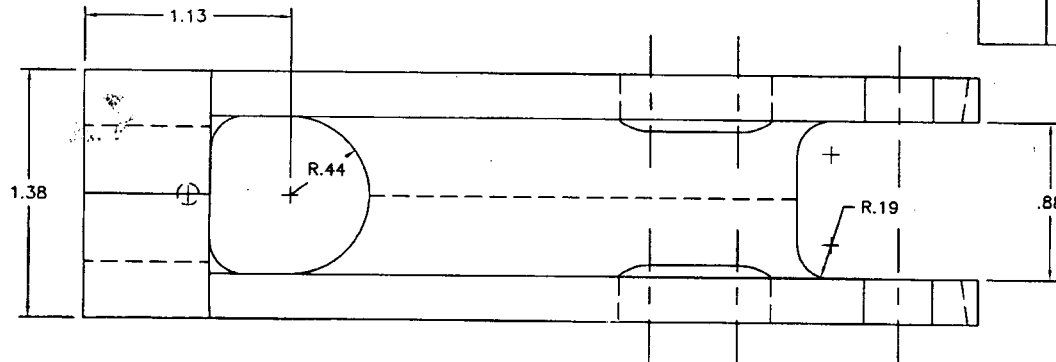
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.69	+/-0.030	.699	—		RA26	Vern
4.94	+/-0.030	4.934	—		"	
3/4-20	N/A	3/4-20	—		RA26	
R0.44	+/-0.030	.44	✓		FK-04	Vern
0.61	+/-0.030	.61	✓		"	"
0.88	+/-0.030	.876	—		RA26	Vern
0.063	+/-0.010	.063	✓		RG	
1.38	+/-0.030	1.373	✓		FK-04	Vern
0.69	+/-0.030	.693	✓		"	"
0.12	+/-0.030	.123	✓		"	"
Ø0.12	+/-0.030	.125	✓		"	"
0.98	+/-0.030	.971	✓		"	"
0.25	+/-0.030	.252	✓		"	"
0.36	+/-0.030	.36	✓		"	"
0.37	+/-0.030	.37	✓		"	"
0.10	+/-0.030	.10	✓		"	"
R0.063	+/-0.010	.063	✓		R-G	
0.373	+0.017/-0.000	.374	✓		FK-04	Vern
Ø0.34	+/-0.030	.34	✓		"	"
R0.25	+/-0.030	.25	✓		RG	
2.38	+/-0.030	2.38	✓		FK-04	Vern
3.81	+/-0.030	3.81	✓		"	"

Measured by: <i>FK</i> 12/10/23	Audited by: <i>DA</i> 12/10/24	Prototype Approval:	N/A
Date: 12-09-27	Date: 12-10-24	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	08.12.02	New Issue	KJ/DD	<i>[Signature]</i>

REVISION						
LETTER	DRFTSMAN	DATE	DESCRIPTION		APPROVED	DATE
A	DNN	2/17/03	ADDED SMOOTH EDGES TO -001 & -003; REDUCED LENGTH OF -003 BY .125"; ADDED DRAIN HOLE TO -001; INCREASED DIA. OF AFT SLOT ON -001.			
MINOR CHANGE - FAR 21.95			CHECK	D. MURPHY	2/17/03	



SHOP COPY  
RETURN TO  
ENGINEERING  
UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 87729 ML5

12/07/27

DR. .12 DIA. DRAIN HOLE  
(NOTE: SPOTFACE IF REQ'D (A)  
TO DRILL HOLE)

3/4"-20 THD.

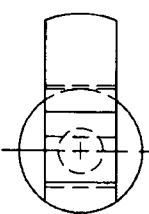
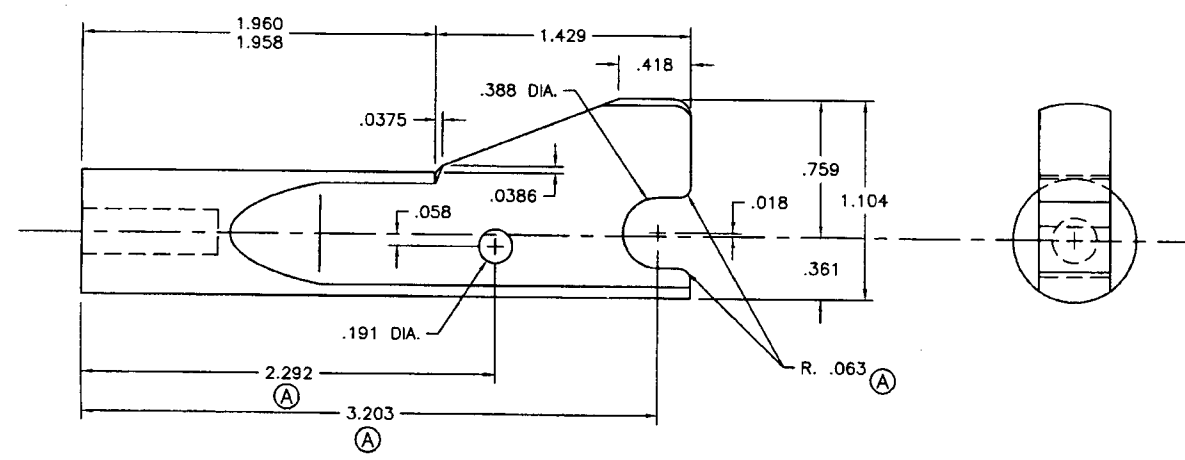
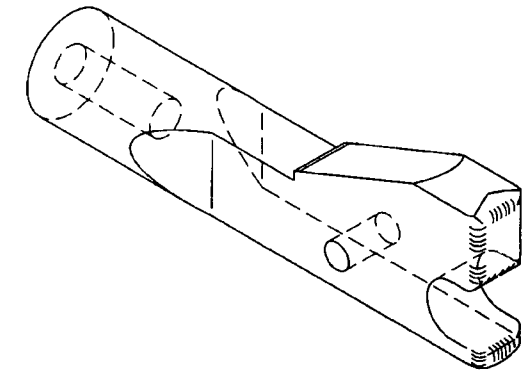
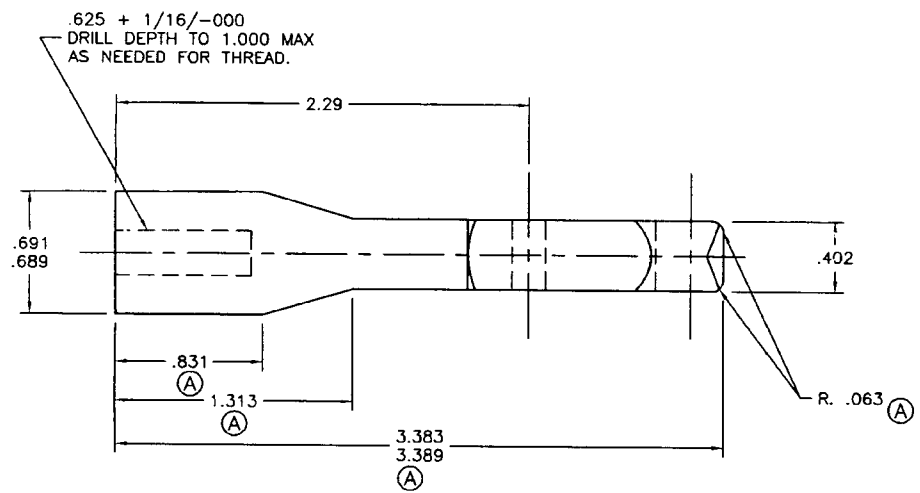
-001 TUBE

1	MS21209F4-15	INSERT				
	-005	PIVOT ARM	△	1.00 DIA. x 3.56	2024-T4, T351 ALUM.	
	-003	LATCH	△	1.11 x 3.50	2024-T4, T351 ALUM.	
	-001	TUBE	△	1.38 HEX STK. x 4.94	2024-T4, T351 ALUM.	
	-005	PART NO.	NAME	STOCK SIZE	MATERIAL	MATL.SPEC
NO. REQ'D PER ASSY		LIST OF MATERIAL				
PROPRIETARY RIGHTS NOTICE		UNLESS OTHERWISE SPECIFIED		TITLE		
THESE DATA ARE PROPRIETARY TO ERA AVIATION, INC. NO DISSEMINATION, REPRODUCTION, OR USE OF THESE DATA FOR ANY PURPOSE IS PERMITTED WITHOUT WRITTEN AUTHORIZATION FROM ERA AVIATION, INC. THE FOREGOING DOES NOT APPLY TO VENDOR PARTS.		X ± 1 XX ± 0.3 XXX ± 0.10 ANGLES ± 1/2°		STEP ACTUATOR COMPONENTS		
2	41232-200-001	DRAWING NO. 41232-200-001		DWG. SIZE C SCALE 2:1		
NEXT ASSEMBLY		FRESH		ERA Aviation, Inc.		
				DWG. NO. 41232-200-002 SHT 1 OF 3		
				REV. A		

△ ANODIZE IN ACCORDANCE WITH MIL-A-8625, TYPE III, CLASS 2 DYED BLACK.

NOTE:

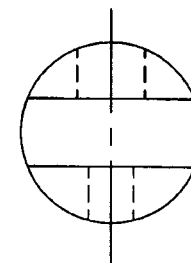
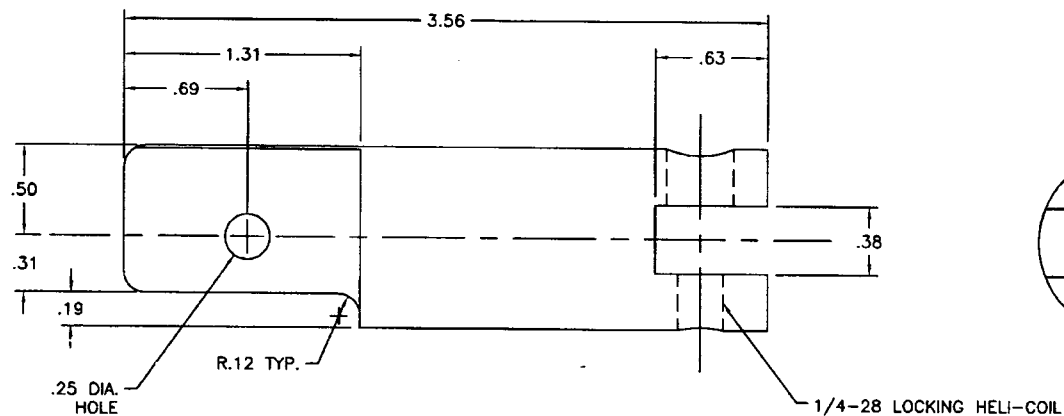
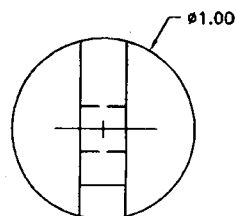
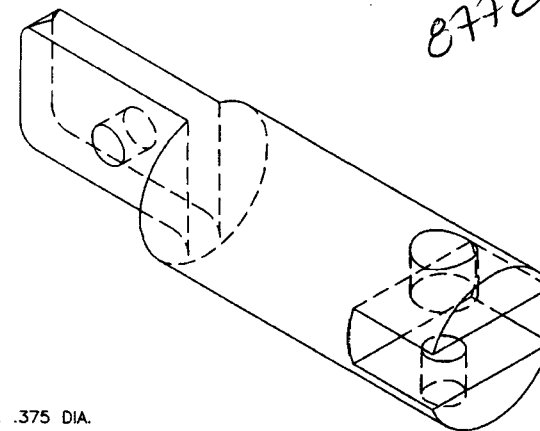
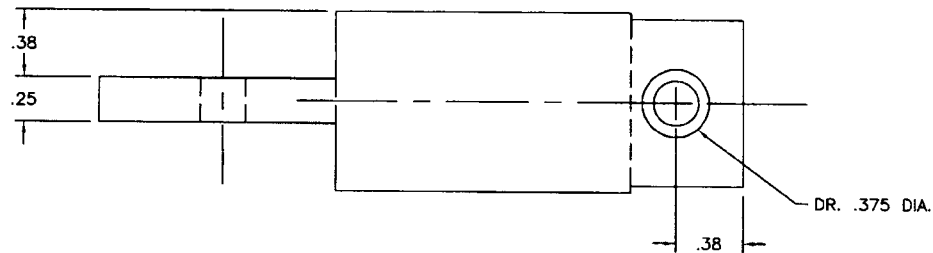
87729



-003 LATCH

<b>PROPRIETARY RIGHTS NOTICE</b> THESE DATA ARE PROPRIETARY TO ERA AVIATION, INC. DISCLOSURE, REPRODUCTION, OR USE OF THESE DATA FOR ANY PURPOSE IS FORBIDDEN WITHOUT WRITTEN AUTHORIZATION FROM ERA AVIATION, INC. THE FORE- GOING DOES NOT APPLY TO VENDOR PARTS.		<b>Era Aviation, Inc.</b>		
TITLE STEP ACTUATOR COMPONENTS	SIZE C	DWG. NO. 41232-200-002 SHT 2 OF 3	REV. A	

87729



-005 PIVOT ARM

PROPRIETARY RIGHTS NOTICE  
THESE DATA ARE PROPRIETARY TO ERA AVIATION, INC.  
DISCLOSURE, REPRODUCTION, OR USE OF THESE DATA  
FOR ANY PURPOSE IS FORBIDDEN WITHOUT WRITTEN  
AUTHORIZATION FROM ERA AVIATION, INC. THE FOR-  
GOING DOES NOT APPLY TO VENDOR PARTS.

*Era Aviation, Inc.*

TITLE		SIZE	DWG. NO.	REV.
STEP ACTUATOR COMPONENTS		C	41232-200-002 SHT 3 OF 3	A

DATE 2/26/04	ENGINEERING ORDER	E.O. No. B-1	SHT. 1 OF 1
BY D. NELSON		DWG. AFFECTED 41232-200-002	
APPROVED BY		SHEET AFFECTED SHT 1 & 3	
TITLE STEP ACTUATOR COMPONENTS			

REASON FOR CHANGE: CHANGED DASH NO. OF INSERT ON L/M; CHANGED INSERT CALLOUT ON -005 PIVOT ARM.

MINOR CHANGE - FAR 21.95

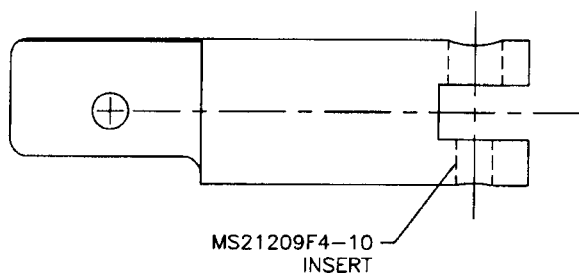
IS

1	MS21209F4-10	INSERT
---	--------------	--------

WAS

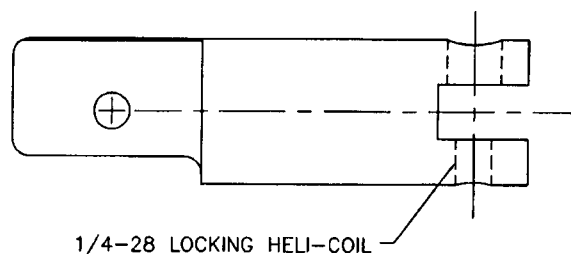
1	MS21209F4-15	INSERT
---	--------------	--------

IS



-005 PIVOT ARM

WAS



-005 PIVOT ARM

CHANGE REQUIRED:	DATE:	BY:	YES	NO
TRAVELER				
INSTALLATION INSTRUCTIONS				
MAINTENANCE INSTRUCTIONS				
ILLUSTRATED PARTS				
UNINCORPORATED DRAWING LIST				
MASTER DRAWING LIST				
COMPUTER DATA BASE				

62448







Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577  
Fax: 613 632 1053

## PURCHASE ORDER

Purchase Order ID **PO18241**

Purchase Order Date 10/24/12

PO Print Date 10/24/12

Page Number 1 of 1

**Order From :**

VC-ATG001

A.T.G. INDUSTRIES INC.  
731 INDUSTRIELLE ROAD  
ROCKLAND, ON K4K 1T2  
CANADA

**Contact Name**

**Buyer**

Chantal Lavoie

**Vendor Phone**

613-446-4544

**Requisition Nbr**

**Vendor Fax**

613-446-4556

**Tax Resale Nbr**

10127-2607

**Vendor Account Nbr**

**Terms**

Net 30

**Currency**

CAD

**FOB**

Destination-Collect

**Ship To :**

DART AEROSPACE LTD

1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
02/24/12

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	91735	D4703-043 LOCK PIN BASE	10/25/12 Yes	2.00	Dart Truck	\$25.0000	\$50.00
		<b>Special Inst:</b>	FINISH: BLACK ANODIZE AS PER MIL-8625F, TYPE III, CLASS 2				
2	91733	D4726-1 HANDLE	10/25/12 Yes	2.00	Dart Truck	\$25.0000	\$50.00
		<b>Special Inst:</b>	FINISH: BLACK ANODIZE AS PER MIL-8625F, TYPE III, CLASS 2				
3	87729	41232-200-002-001 TUBE	10/25/12 Yes	4.00	Dart Truck	\$25.0000	\$100.00

CERTIFICATE OF CONFORMITY  
REQ'D UPON DELIVERY

**Special Inst.**

FINISH: BLACK ANODIZE AS PER  
MIL-8625F, TYPE III, CLASS 2

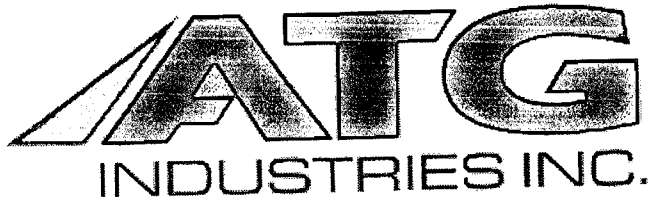
**PO Total:**

**\$200.00**

Change Nbr: 1

Change Date: 10/24/12

No substitution or deviation without  
consent.  
Certificate of Conformity or Material  
Certification required **YES** NO



A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62003

Date: 25-Oct-12

To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ship To

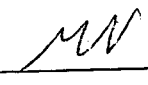
DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via	
Quantity	Description	Rev:	
1 lot	Part: ASST 2 PCS D4703-043 2 PCS D4726-1 4 PCS 41232-200-002-001 HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 Job: 20120651		PO: PO18241 Line:
<p align="center">Certificate of Conformance</p> <p>A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.</p> <p align="center">ISO 9001 : 2008 REGISTERED ATG SALES-2010 TERMS APPLY</p> <p>DATE: <u>25/10/12</u></p> <p>CERTIFIED SIGNATURE: <u></u></p> <p>RECEIVER SIGNATURE: _____</p>			

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
Tel: 613 632 9577

\*\*\*OUTSTANDING PO REPRINT\*\*\*

Purchase Order ID PO18241

Purchase Order Date 10/24/12

PO Print Date 11/08/12

Page Number 1 of 1

Order From :

VC-ATG001

A.T.G. INDUSTRIES INC.  
731 INDUSTRIELLE ROAD  
ROCKLAND, ON K4K 1T2  
CANADA

Contact Name  
Vendor Phone 613-446-4544  
Vendor Fax 613-446-4556  
Vendor Account Nbr

Buyer Chantal Lavoie  
Requisition Nbr  
Tax Resale Nbr 10127-2607  
Terms Net 30  
Currency CAD  
FOB Destination-Collect

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty	Unit Price	Extended Price
----------	--	------------------------	----------------------	---------	------------	----------------

Ship To : DART AEROSPACE LTD 1270 ABERDEEN  
HAWKESBURY, ON K6A 1K7  
CANADA

**FAXED**  
11/12/12

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req. Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
4	87729	41232-200-002-001 TUBE	10/25/12 Yes	4.00	Dart Truck	\$25.0000	\$100.00

Special Inst: FINISH: BLACK ANODIZE AS PER  
MIL-8625F, TYPE III, CLASS 2

Line Total: \$100.00

Outstanding PO Total: \$100.00

CERTIFICATE OF CONFORMITY  
REQ'D UPON DELIVERY

Change Nbr: 2

Change Date: 11/08/12

No substitution or deviation without  
consent.

Certificate of Conformity or Material  
Certification required - YES NO



A.T.G. Industries Inc.  
731, rue Industrielle Rd.  
PLATING DEPARTMENT  
Rockland, On K4K 1T2  
Canada  
Ph: (613) 446-4544  
Fax: (613) 446-4556

### Pack List

Number: 62043

Date: 13-Nov-12

#### To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

#### Ship To

DART AEROSPACE LTD  
1270 ABERDEEN ST.  
HAWKESBURY, ON K6A 1K7  
Canada

13-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

s		Ship Via
Quantity	Description	Rev:
4 ea	Part: 41232-200-002-001  HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2 Job: 20120697	Rev:  872114 Line:
1 ea	Part: D4410-041  BLACK ANODIZE MIL-A-8625 TYPE II CLASS 2 Job: 20120698	Rev:  Line:

PO: PO18241

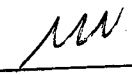
PO: PO18372

#### Certificate of Conformance

A.T.G. Industries certifies that all items in this shipment are in conformance with all requirements, specifications and drawings referenced in the purchase order.

ISO 9001 : 2008 REGISTERED  
ATG SALES-2010 TERMS APPLY

DATE: 13/11/12

CERTIFIED SIGNATURE: 

RECEIVER SIGNATURE: \_\_\_\_\_